

RECORDED AT THE REQUEST OF  
AND WHEN RECORDED MAIL TO:  
STATE OF CALIFORNIA  
California State Lands Commission  
Attn: Title Unit  
100 Howe Avenue, Suite 100-South  
Sacramento, CA 95825-8202

**STATE OF CALIFORNIA**  
**OFFICIAL BUSINESS**  
Document entitled to free recordation  
pursuant to Government Code Section 27383

SPACE ABOVE THIS LINE FOR RECORDER'S USE

## LEASE NO. PRC 932.1

This Lease consists of this summary and the following attached and incorporated parts:

Section 1	Basic Provisions
Section 2	Special Provisions Amending or Supplementing Section 1 or 3
Section 3	General Provisions
Exhibit A	Land Description
Exhibit B	Site and Location Map
Exhibit C	Sampling and Analysis Plan

### SECTION 1

#### BASIC PROVISIONS

**THE STATE OF CALIFORNIA**, hereinafter referred to as Lessor acting by and through the **CALIFORNIA STATE LANDS COMMISSION** (100 Howe Avenue, Suite 100-South, Sacramento, California 95825-8202), pursuant to Division 6 of the Public Resources Code and Title 2, Division 3 of the California Code of Regulations, and for consideration specified in this Lease, does hereby lease, demise, and let to Cabrillo Power I, LLC, hereinafter referred to as Lessee, those certain lands described in Exhibit A hereinafter referred to as Lease Premises, subject to the reservations, terms, covenants, and conditions of this Lease.

**MAILING ADDRESS:** 4600 Carlsbad Boulevard  
Carlsbad, CA 92008

**LEASE TYPE:** General Lease – Beach Nourishment Use

**LAND TYPE:** Sovereign

**LOCATION:** Pacific Ocean adjacent to Carlsbad State Beach and Agua Hedionda Lagoon, city of Carlsbad, San Diego County

**LAND USE OR PURPOSE:** Placement of up to 500,000 cubic yards of suitable dredge material per dredging cycle from Agua Hedionda Lagoon on sovereign land adjacent to Carlsbad State Beach

**TERM:** 10 years; beginning September 1, 2014; ending August 31, 2024, unless sooner terminated as provided for in this Lease.

**CONSIDERATION:** \$125 per annum, plus the public use and benefit. Subject to modification by Lessor as specified in Paragraph 3(b) of Section 3 - General Provisions.

**AUTHORIZED IMPROVEMENTS:** None

**LIABILITY INSURANCE:** In an amount of no less than \$1,000,000 per occurrence

**SURETY BOND OR OTHER SECURITY:** None

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## **SECTION 2 SPECIAL PROVISIONS**

**BEFORE THE EXECUTION OF THIS LEASE, ITS PROVISIONS ARE AMENDED, REVISED, OR SUPPLEMENTED AS FOLLOWS:**

1. Lessee is authorized during the lease term to place up to a maximum of 500,000 cubic yards of sand per dredging cycle at the Carlsbad State Beach receiver site (Site) as described in Exhibit A attached and by this reference made a part hereof, and as shown on Exhibit B attached for reference purposes only. Such dredge material placement is authorized for materials dredged from Agua Hedionda Lagoon only.
2. Prior to the start of any dredge cycle where placement of dredged materials at the Site is anticipated, Lessee shall submit to Lessor upon request all final permits and authorizations, and any monitoring reports or notifications required of all local, State, and federal permitting authorities with jurisdiction over the dredging activity and Site.
3. At least 30 days prior to the placement of dredge materials at the Site, Lessee shall submit for Lessor staff review and approval a Sampling and Analysis Plan (SAP), substantially in the form of the SAP as shown in Exhibit C, attached and by this reference made a part hereof, and a Sampling Report showing the results of sampling conducted in accordance with the SAP.



## SECTION 3

### GENERAL PROVISIONS

#### 1. GENERAL

In the case of any conflict between these General Provisions and Special Provisions found in Section 2, the Special Provisions control.

#### 2. DEFINITIONS

For the purposes of this Lease, the following terms shall be defined as stated below:

“Additions” shall be defined as any use or Improvements other than those expressly authorized in this Lease.

“Alterations” shall be defined as any material change in the size, scope, density, type, nature, or intensity of Improvements on the Lease Premises from what is authorized in this Lease. Alterations shall also include any modifications, alterations, or renovations of the land or waterways on the Lease Premises other than those authorized by this Lease.

“Breach” shall be defined as a party's unjustified or unexcused nonperformance of a contractual duty the party is required to immediately perform.

“Damages” shall include all liabilities, demands, claims, actions or causes of action whether regulatory, legislative or judicial in nature; all assessments, levies, losses, fines, penalties, damages, costs and expenses, including, without limitation: (i) reasonable attorneys', accountants', investigators', and experts' fees and expenses sustained or incurred in connection with the defense or investigation of any such liability, and (ii) costs and expenses incurred to bring the Lease Premises into compliance with Environmental Laws, a court order, or applicable provisions of a Regulatory Agency. The term “Damages” also includes, expressly, those Damages that arise as a result of strict liability, whether arising under Environmental Laws or otherwise.

“Default” shall be defined as a material Breach of magnitude sufficient to justify termination of the Lease.

“Environmental Law” shall be defined as and include all federal, state, and local environmental, health, and safety laws, statutes, ordinances, regulations, rules, judgments, orders, and notice requirements, which were in effect as of the date of execution of this Lease or are subsequently enacted and lawfully applied hereto, which regulate or relate to (a) the protection or clean-up of the environment; (b) the use, treatment, storage, transportation, handling or disposal of hazardous, toxic or otherwise dangerous substances, wastes or materials; (c) the quality of the air and the discharge of airborne wastes, gases, particles, or other emissions; (d) the preservation or protection of waterways, groundwater, or drinking water; (e) the health and safety of persons or property; or (f) impose liability with respect to any of the foregoing, including without limitation, the California Environmental Quality Act (CEQA) [PRC §§ 21000 et seq.]; the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) [42 USCS §§ 9601 et seq.]; the Resource Conservation and Recovery Act of 1976 (RCRA) [42 USCS §§ 6901 et seq.]; the Clean Water Act, also known as the Federal Water Pollution Control Act (FWPCA) [33 USCS §§ 1251 et seq.]; the Toxic Substances Control Act (TSCA) [15 USCS §§ 2601 et seq.]; the Hazardous Materials Transportation Act (HMTA) [49 USCS §§ 1801 et seq.]; the Insecticide, Fungicide, Rodenticide Act [7 USCS §§ 136 et seq.]; the Superfund Amendments and Reauthorization Act [42 USCS §§ 6901 et seq.]; the Clean Air Act [42 USCS §§ 7401 et seq.]; the Safe Drinking Water Act [42 USCS §§ 300f et seq.]; the Solid Waste Disposal Act [42 USCS §§ 6901 et seq.]; the Surface Mining Control and Reclamation Act [30 USCS §§ 1201 et seq.]; the Emergency Planning and Community Right to Know Act [42 USCS §§ 11001 et seq.]; the Occupational Safety and Health Act [29 USCS §§ 655 and 657]; the California Underground Storage of Hazardous Substances Act [H & S C §§ 25280 et seq.]; the California Hazardous Substances Account Act [H & S C §§ 25300 et seq.]; the California Hazardous Waste Control Act [H & S C §§ 25100 et seq.]; the California Safe Drinking Water and Toxic Enforcement Act [H & S C §§ 24249.5 et seq.]; the Porter-Cologne Water Quality Act [Water C §§ 13000 et seq.] together with any amendments of or regulations promulgated under the statutes cited above.

“Hazardous Material” shall be defined as and include any substance which falls within the definition of hazardous substance, hazardous waste, hazardous material, toxic substance, solid waste, pollutant, or contaminant, under any Environmental Law.

“Improvements” shall be defined as any modification, alteration, addition, or removal of any material, and any other action which serves to change the condition of the Lease Premises from the natural state whether situated above, on, or under the Lease Premises. Improvements include, but are not limited to buildings, structures, facilities, decks, docks, wharves, piers, walks, curbs, bridges, buoys, landscaping, roadways, shoreline protective structures of all types, foundations, pilings or similar support structures whether above or below the water line, fences, utilities, pipelines, and any other construction of any type situated on the Lease Premises.

“Lease” shall be defined as this lease contract together with all amendments and exhibits.

“Lease Premises” shall be defined as the area of land, together with any improvements located thereon, the use and occupancy of which

Form51.16 (Rev. 10/13)

is authorized by this Lease.

“Lessor” shall be defined as the state of California, acting by and through the California State Lands Commission, including the Commissioners, their alternates and designates, the Executive Officer, and the staff of the California State Lands Commission.

“Regulatory Agency” shall include any Federal, State, County, Municipal, or Local agency having jurisdiction over the Lease Premises.

“Repairs” shall be defined as all work of any kind made to maintain, change, restore, strengthen, replace, alter, or otherwise affect any Improvement on the Lease Premises.

“Residence” shall be defined as any Improvement, whether permanent, movable, or temporary, or a portion thereof, which is for the time being a home or place of lodging. A Residence includes any Improvement affixed to the land such as trailers or cabins, built on a raised foundation such as stilts or pilings, and floating residences such as boats, barges, arks, and houseboats, and any combination of such Improvements which provide residential accommodations to the Lessee or others. “Residence” shall not include transitory, intermittent, recreational use of facilities such as campgrounds.

“Residential Use” shall be defined as Improvements such as, but not limited to, sundecks, and sunrooms which are extensions of, or additions to, the upland property and are not water-dependent uses. Although the various uses or Improvements which may fall under this definition may vary by geographic area, lease type, or other factors, it is the intention of the parties to include in this definition all uses and Improvements which are not water-dependent but residential in nature, or those uses and Improvements which are not consistent with common law public trust principles and values.

### 3. CONSIDERATION

#### (a) Absolute Triple Net Lease

This Lease is an absolute triple net lease, pursuant to which Lessor has no obligation with respect to the payment of taxes, insurance, the cost of maintenance, utilities and repairs or other costs or obligations associated with the Leased Premises, except as expressly stated herein.

#### (b) Rent

Lessee agrees to pay Lessor rent as stated in this Lease, in annual installments, for the use and occupancy of the Lease Premises. The first installment shall be due on or before the beginning date of this Lease and all subsequent installments shall be due on or before each anniversary of its beginning date during each year of the Lease term, or as otherwise provided in this Lease. Said sums shall be paid in lawful money of the United States of America. Lessee shall send said rent to the mailing address of Lessor. Timeliness of receipt of remittances sent by mail shall be governed by the postmark date as stated in Government Code Section 11002. Invoices for rent due may be provided by Lessor as a courtesy. Lessor's failure to, or delinquency in, providing invoices shall neither excuse Lessee from paying rent, nor extend the time for paying rent.

#### (c) Modification

Lessor may modify the method, amount, or rate of consideration effective on each fifth anniversary of the beginning date of this Lease. Should Lessor fail to exercise such right effective on any fifth anniversary it may do so effective on any one (1) of the next four (4) anniversaries following such fifth anniversary, without prejudice to its right to effect such modification on the next or any succeeding fifth anniversary of the beginning date. No such modification shall become effective unless Lessee is given at least thirty (30) days' notice prior to the date of the Commission meeting wherein the rent modification is considered, or thirty (30) days' notice prior to the effective date of the increase, whichever provides a greater notice period.

If the consideration for this Lease is based on a percentage of income, royalties, profits, or any similar business performance indicators, Lessee shall provide Lessor with financial statements and all other documents necessary to determine the relevant basis for income.

#### (d) Penalty and Interest

Any installments of rent accruing under this Lease not paid when due shall be subject to a delinquency charge equal to five percent (5%) of the principal sum due. Annual payments shall bear interest as specified in Public Resources Code Section 6224 and the Lessor's then existing administrative regulations governing penalty and interest.

#### (e) Non-Monetary Consideration

If the consideration to Lessor for this Lease is the public use, benefit, health, or safety, Lessor shall have the right to review such consideration at any time and set a monetary rental if the Lessor, at its sole discretion, determines that such action is in the best interest of the State. Lessee's assignment or transfer of this Lease pursuant to Section 3 Paragraph 11 below to any third party

Form51.16 (Rev. 10/13)

which results in royalties, profits, or any form of compensation, whether monetary or otherwise, shall give Lessor the right to reevaluate the requirements of this Lease as stated in Section 3 Paragraph 11. Lessee shall be given at least thirty (30) days' notice prior to the date of the Commission meeting wherein the rent modification is considered, or thirty (30) days' notice prior to the effective date that this Lease is converted to a monetary rental, whichever provides more notice.

**(f) Place for Payment of Rent**

All rent that becomes due and payable under this Lease shall be paid to Lessor in person or by United States mail at the Sacramento Offices of the California State Lands Commission, currently at 100 Howe Avenue, Suite 100-South, Sacramento, CA 95825-8202, or at any other place or places that Lessor may designate by written notice to Lessee. Alternately, Lessee may contact Lessor's accounting department for Lessor's current practices for payment by credit card or electronic fund transfer.

**4. BOUNDARIES**

This Lease is not intended to establish the State's boundaries and is made without prejudice to either party regarding any boundary or title claims which may be asserted presently or in the future.

**5. LAND USE**

**(a) General**

(1) Lessee shall use the Lease Premises only for the purpose or purposes stated in this Lease and only for the operation and maintenance of the Improvements expressly authorized in this Lease. Lessee shall commence use of the Lease Premises within ninety (90) days of the beginning date of this Lease or within ninety (90) days of the date set for construction to commence as set forth in this Lease, whichever is later.

(2) All demolition, construction, remodeling, reconstruction, maintenance, repairs, removal, or remediation performed on the Lease Premises at any time by Lessee shall first be authorized by all appropriate Regulatory Agencies. Lessee is solely responsible for determining what approvals, authorizations, or certifications are required, and shall be solely responsible for all costs incurred thereby. In addition, Lessee shall obtain and comply with preventative or remedial measures required by any environmental reports, assessments, or inspections, including, but not limited to those required by the California Environmental Quality Act and/or the National Environmental Policy Act, or as otherwise required by law or reasonably requested by Lessor. Nothing in this Lease shall be interpreted as a pre-approval of any permit, certification, or any other precondition required for the use of the Lease Premises.

**(b) Continuous Use**

Lessee's use of the Lease Premises shall be continuous from commencement of the Lease until its expiration. Lessee's discontinuance of such use for a period of ninety (90) days shall be presumed to be an abandonment unless Lessee demonstrates to Lessor's satisfaction that Lessee's use of the Lease Premises is consistent with similarly situated properties. In the event of an abandonment, Lessor may elect to terminate the Lease as provided in Paragraph 12(a)(3). Abandonment of the Lease Premises shall not relieve Lessee of any obligations under this Lease.

**(c) Repairs and Maintenance**

(1) Lessor shall not be required to make any Repairs in, on, or about all or part of the Lease Premises. Lessee shall, at all times during the term of this Lease and without any cost or expense to Lessor, keep and maintain the Lease Premises, including all Improvements, in good order and repair and in a clean, safe, sanitary, and orderly condition.

(2) Lessee shall make, or cause to be made, any Repairs which may be required by any Regulatory Agency. Lessee shall observe and comply with, any law, statute, ordinance, plan, regulation, resolution, or policy applicable to the Lease Premises in making such Repairs. All work shall be performed with reasonable diligence, completed within a reasonable time, and performed at the sole cost and expense of Lessee.

(3) Lessee expressly accepts the Lease Premises "as is" and expressly acknowledges that:

(i) Lessor has made no representations or warranties as to the suitability of the Lease Premises for any Improvements. Lessee shall conduct all tests necessary to determine the suitability of the Lease Premises for any proposed use or Improvements authorized; and

(ii) Lessor has made no representations or warranties as to the quality or value of any Improvements found on the Lease Premises, or of their conformity to any applicable building codes, zoning ordinances, or other regulations. Lessee agrees to inspect any preexisting Improvements at its own cost to determine whether such Improvements are safe and suitable for

the Lessee's intended use; and

(iii) Lessee shall neither be entitled to any reduction in rent, nor any extension of the terms of this Lease because of damage to or destruction of any Improvements on the Lease Premises.

(iv) Lessee and Lessor agree that any Improvements on the Lease Premises constitute the personal property of Lessee and that fixture law does not apply.

(4) In the event that the Lease Premises is partly, or in whole, comprised of tidal, submerged, or waterfront property, Lessee expressly accepts the hazards involved in using or improving such lands. Lessor is not responsible for, and Lessee shall not be reimbursed for nor receive any offset of rent for, any damages or reduced use of the Lease Premises caused by: local or invasive flora or fauna, flooding, erosion, sea level rise, storms, freezing, inclement weather of any kind, acts of god, maintenance or failure of protective structures, and any other such hazards.

**(d) Additions, Alterations, and Removal**

No Improvements other than those expressly authorized in this Lease shall be constructed by the Lessee on the Lease Premises without the prior written consent of Lessor. Any Additions or Alterations are expressly prohibited. Lessee is also prohibited from any Additions or Alterations which cause a material change to the environmental impact on or around the Lease Premises.

**(e) Enjoyment**

This Lease is non-exclusive, and is subject to the provisions of Section 3, Paragraph 6 below. Lessee shall have the right to exclude persons from the Lease Premises only when their presence or activity constitutes a material interference with Lessee's use and enjoyment of the Lease Premises.

**(f) Discrimination**

Lessee, in its use of the Lease Premises, shall not discriminate against any person or class of persons on any basis protected by federal, state, or local law, including: race, color, creed, religion, national origin, sex, sexual orientation, gender identity, age, marital/parental status, veteran status, or disability.

**(g) Residential Use**

Unless otherwise provided for in this Lease, no portion of the Lease Premises shall be used as a location for a Residence, for the purpose of mooring or maintaining a structure which is used as a Residence, or for Residential Uses.

**(h) Commercial Use**

Unless otherwise provided for in this Lease, the Lease Premises is to be used by Lessee and Lessee's invitees or guests only. Use of the Lease Premises for commercial purposes; conducting a business, whether for profit or otherwise; and any subleasing, rental, or any transaction whereby Lessee directly or indirectly receives compensation from a third party in exchange for use of the Lease Premises shall constitute an immediate Default of this lease with no cure period.

**6. RESERVATIONS, ENCUMBRANCES, AND RIGHTS-OF-WAY**

**(a) Reservations**

(1) Lessor expressly reserves all natural resources in or on the Lease Premises, including but not limited to timber, minerals, and geothermal resources as defined under Public Resources Code sections 6401, 6407, and 6903, respectively; the right to grant and transfer the same; as well as the right to grant leases in and over the Lease Premises which may be necessary or convenient for the extraction of such natural resources. Such leasing shall be neither inconsistent nor incompatible with the rights or privileges of Lessee under this Lease.

(2) Lessor expressly reserves a right to go on the Lease Premises and all Improvements for any purposes associated with this Lease or for carrying out any function required by law, or the rules, regulations, or management policies of the State Lands Commission. Lessor shall have a right of reasonable access to the Lease Premises across Lessee owned or occupied lands adjacent to the Lease Premises for any purpose associated with this Lease.

(3) Lessor expressly reserves to the public an easement for convenient access across the Lease Premises to other State-owned lands located near or adjacent to the Lease Premises and a right of reasonable passage across and along any right-of-way granted by this Lease; however, such easement or right-of-way shall be neither inconsistent nor incompatible with the rights or privileges of Lessee under this Lease.

(4) Lessor expressly reserves the right to lease, convey, or encumber the Lease Premises, in whole or in part, during the Lease term for any purpose not inconsistent or incompatible with the rights or privileges of Lessee under this Lease.

**(b) Encumbrances**

The Lease Premises may be subject to pre-existing contracts, leases, licenses, easements, encumbrances, and claims and is made without warranty by Lessor of title, condition, or fitness of the land for the stated or intended purpose.

**7. RULES, REGULATIONS, AND TAXES**

(a) Lessee shall comply with and be bound by all presently existing or subsequently enacted rules, regulations, statutes or ordinances of the State Lands Commission or any Regulatory Agency. Occupancy or use of the Lease Premises provides no exemption from applicable regulations including, but not limited to, federal, state, county and local regulations, regulations promoting public health, safety, or welfare, building codes, zoning ordinances, and sanitation regulations. Lessee expressly acknowledges that Regulatory Agencies have jurisdiction over the Lease Premises unless such laws are in direct conflict with state law or public trust principles.

(b) Lessee understands and agrees that a necessary condition for the granting and continued existence of this Lease is that Lessee obtains and maintains all permits or other entitlements. Lessee expressly acknowledges that issuance of this Lease does not substitute for, or provide preference in obtaining authorizations from other Regulatory Agencies.

**(c) Taxes**

(1) In addition to the rent due under this Lease, Lessee accepts responsibility for and shall pay any and all real and personal property taxes, including possessory interest taxes, assessments, special assessments, user fees, service charges, and other charges of any description levied, imposed on, assessed, or associated with the leasehold interest, Improvements on the Lease Premises, any business or activity occurring on the Lease Premises, the Lease Premises itself, or any portion thereof, levied by any governmental agency or entity. Such payment shall not reduce rent due Lessor under this Lease and Lessor shall have no liability for such payment.

(2) In the event that this Lease commences, terminates or expires during a tax year, Lessee shall pay the taxes for the period of such year during which this Lease was in effect.

(3) Any and all taxes and assessments and installments of taxes and assessments required to be paid by Lessee under this Lease shall be paid when due and the official and original receipt for the payment of such tax, assessment, or installment shall be delivered to Lessor upon request.

(4) Lessee shall indemnify and hold Lessor, the Lease Premises, and any Improvements now or hereafter located thereon, free and harmless from any liability, loss, or Damages resulting from any taxes, assessments, or other charges required by this Lease to be paid by Lessee and from all interest, penalties, and other sums imposed thereon and from any sales or other proceedings to enforce collection of any such taxes, assessments, or other charges.

**8. INDEMNITY**

(a) Lessee's use of the Lease Premises and any Improvements thereon is at Lessee's sole and exclusive risk.

(b) In addition to any other obligation to indemnify Lessor as otherwise provided in this Lease, except to the extent caused by the sole negligence and/or willful misconduct of the Lessor, Lessee shall indemnify, hold harmless, and, at the option of Lessor, defend Lessor, its officers, agents, and employees from any and all Damages resulting from Lessee's occupation and use of the Lease Premises. Lessee shall reimburse Lessor in full for all reasonable costs and attorneys' fees, specifically including, without limitation, any Damages arising by reason of: (1) The issuance, enjoyment, interpretation, Breach, or Default of this Lease; (2) The challenge to or defense of any environmental review upon which the issuance of this Lease is based; (3) The death or injury of any person, or damage to or destruction of any property from any cause whatever in any way connected with the Lease Premises, or with any of the Improvements or personal property on the Lease Premises; (4) The condition of the Lease Premises, or Improvements on the Lease Premises; (5) An act or omission on the Lease Premises by Lessee or any person in, on, or about the Lease Premises; (6) Any work performed on the Lease Premises or material furnished to the Lease Premises; (7) Lessee's failure to comply with any material legal or other requirement validly imposed on Lessee or the Lease Premises by a Regulatory Agency.

(c) The reimbursement provisions of this Paragraph 8 shall not apply to any claims, litigation, or other actions which may be brought by either Lessee or Lessor against each other.

(d) Nothing in this paragraph shall be construed as requiring that Lessor defend itself against all or any aspect of any challenge to

Form51.16 (Rev. 10/13)



this Lease or any associated environmental review. However, Lessee may take whatever legal action is available to it to defend this Lease or any associated environmental review against any challenge by a third party, whether or not Lessor chooses to raise a defense against such a challenge.

(e) Lessee shall notify Lessor immediately in case of any accident, injury, or casualty on the Lease Premises.

## 9. INSURANCE

(a) Lessee shall obtain and maintain in full force and effect during the term of this Lease comprehensive general liability insurance and property damage insurance, with such coverage and limits as may be reasonably requested by Lessor from time to time, but in no event for less than the sum(s) specified against any and all claims or liability arising out of the ownership, use, occupancy, condition, or maintenance of the Lease Premises and all Improvements.

(b) The insurance policy shall identify the Lease by its assigned number. The specific Improvements shall also be generally identified, as well as their location on state owned property. The coverage provided shall be primary and non-contributing. Lessee shall keep such policy current. Lessor shall be named as a "certificate holder" and/or an "additional interest" on the policy. Lessee shall provide Lessor with a current certificate of insurance at all times. At Lessor's request, Lessee shall provide a full copy of the current insurance policy, along with any and all endorsements or other such documents affecting the coverage. Lessor will not be responsible for any premiums or other assessments on the policy.

(c) The insurance coverage specified in this Lease shall be in effect at all times during the Lease term and subsequently until Lessor has either accepted all of the Lease Premises as improved or restored by Lessee as provided elsewhere in this Lease. Lessee shall notify Lessor within five (5) business days if the insurance is canceled for any reason.

## 10. SURETY BOND

(a) When required by Section 1 of this Lease, Lessee shall provide a surety bond or other security device acceptable to Lessor, for the specified amount, and naming the State of California, California State Lands Commission as the assured, to guarantee to Lessor the faithful observance and performance by Lessee of all of the terms, covenants, and conditions of this Lease.

(b) Lessor may require an increase in the amount of the surety bond or other security device to cover any additionally authorized Improvements, any modification of consideration, or to provide for inflation or other increased need for security. The surety bond or other security device may be increased on each fifth anniversary of the beginning date of this Lease. Should Lessor fail to exercise such right effective on any fifth anniversary, it may do so effective on any one (1) of the next four (4) anniversaries following such fifth anniversary without prejudice to its right to effect such modification on the next or any succeeding fifth anniversary. No such modification shall become effective unless Lessee is given at least thirty (30) days' notice prior to the date of the Commission meeting wherein the modification of the bond or security is considered, or thirty (30) days' notice prior to the effective date of the increase, whichever provides more notice.

(c) The surety bond or other security device shall be maintained in full force and effect at all times during the Lease term and subsequently until Lessor has either accepted all of the Lease Premises as improved or restored by Lessee as provided elsewhere in this Lease. Lessee must first seek approval of Lessor before changing the type of security device used, or the bond holder.

## 11. ASSIGNMENT, ENCUMBRANCING OR SUBLETTING

(a) Lessee shall not either voluntarily or by operation of law, assign, transfer, mortgage, pledge, hypothecate or encumber this Lease and shall not sublet the Lease Premises, in whole or in part, or allow any person other than the Lessee's employees, agents, servants and invitees to occupy or use all or any portion of the Lease Premises without the prior written consent of Lessor, which consent shall not be unreasonably withheld.

(1) Notwithstanding the foregoing prohibition against transfer and assignment, the Lease may be transferred by Lessee if the transfer is caused by the death of a spouse and the full interest of the deceased spouse is transferred to a surviving spouse; or the transfer is caused by the dissolution of the marriage of Lessee and the full interest of one of the spouses is transferred to the other spouse. In the event of such a transfer, Lessor shall be notified in writing within 30 days of the transfer.

(2) Notice to Lessor of Successor Trustee(s): In the event this Lease is held in trust, and the Lessee is a trustee thereof, the substitution or succession of a new trustee shall not be an assignment or transfer for the purposes of this Paragraph. Lessee (and by operation of law, any successor trustee) agrees to provide prompt notice to Lessor of any succession or substitution of trustee in accordance with Paragraph 16(c) of General Provisions, no later than sixty (60) days after the named trustee as appears on the face of this Lease becomes unable or ceases to serve as trustee for any reason.

(b) The following shall be deemed to be an assignment or transfer within the meaning of this Lease:

- (1) If Lessee is a business entity, any dissolution, merger, consolidation or other reorganization of Lessee, or the sale or other transfer of substantially all the assets of Lessee. If Lessee is a publicly traded entity, transfers of interests in Lessee shall not constitute an assignment requiring the consent of Lessor.
- (2) If Lessee is a partnership, a transfer of any interest of a general partner, a withdrawal of any general partner from the partnership, or the dissolution of the partnership.
- (c) If this Lease is for sovereign lands appurtenant to adjoining littoral or riparian land, Lessee shall not transfer or assign its ownership interest or use rights in such adjoining lands separately from the leasehold rights granted herein without the prior written consent of Lessor.
- (d) If Lessee desires to assign, sublet, encumber or otherwise transfer all or any portion of the Lease Premises, Lessee shall do all of the following:
- (1) Give not less than 90 days' prior written notice to Lessor;
  - (2) Provide the name, complete business organization, operational structure, and formation documents of the proposed assignee, sublessee, secured third party, or other transferee; and the nature of the use of and interest in the Lease Premises proposed by the assignee, sublessee, secured third party or other transferee.
  - (3) Provide the terms and conditions of the proposed assignment, sublease, or encumbrance or other transfer;
  - (4) Provide audited financial statements for the two most recently completed fiscal years of the proposed assignee, sublessee, secured party or other transferee; and provide pro forma financial statements showing the projected income, expense and financial condition resulting from use of the Lease Premises; and
  - (5) Provide such additional or supplemental information as Lessor may reasonably request concerning the proposed assignee, sublessee, secured party or other transferee.
  - (6) Lessor will evaluate proposed assignees, sublessees, secured third parties and other transferees and grant approval or disapproval according to standards of commercial reasonableness considering the following factors within the context of the proposed use: the proposed party's financial strength and reliability, their business experience and expertise, their personal and business reputation, their managerial and operational skills, their proposed use and projected rental, as well as other relevant factors.
- (e) Lessor shall have a reasonable period of time from the receipt of all documents and other information required under this provision to grant or deny its approval of the proposed party. Lessor may reevaluate the rent, insurance and/or bond provisions of this Lease, and may condition its approval of the proposed assignment, sublease, hypothecation, mortgage, or other transfer on the party's acceptance of the new terms. Lessee's rights stated in this paragraph shall apply regardless of whether the proposed transfer coincides with a regular rent review period as stated in Section 3 Paragraph 3(c) above.
- (f) Lessee's mortgage or hypothecation of this Lease, if approved by Lessor, shall be subject to terms and conditions imposed by a separately negotiated encumbering agreement.
- (g) Upon the express written assumption of all obligations and duties under this Lease by an assignee approved by Lessor, the Lessee may be released from all liability under this Lease arising after the effective date of assignment and not associated with Lessee's use, possession or occupation of or activities on the Lease Premises; except as to any hazardous wastes, substances or materials as defined under federal, state or local law, regulation, or ordinance manufactured, generated, used, placed, disposed, stored or transported on the Lease Premises during Lessee's tenancy.
- (h) If the Lessee files a petition or an order for relief is entered against Lessee, under Chapters 7, 9, 11 or 13 of the Bankruptcy Code (11 USC Sect. 101, et seq.) then the trustee or debtor-in-possession must elect to assume or reject this Lease within sixty (60) days after filing of the petition or appointment of the trustee, or the Lease shall be deemed to have been rejected, and Lessor shall be entitled to immediate possession of the Lease Premises. No assumption or assignment of this Lease shall be effective unless it is in writing and unless the trustee or debtor-in-possession has cured all Defaults under this Lease (monetary and non-monetary) or has provided Lessor with adequate assurances (1) that within ten (10) days from the date of such assumption or assignment, all monetary Defaults under this Lease will be cured; and (2) that within thirty (30) days from the date of such assumption, all non-monetary Defaults under this Lease will be cured; and (3) that all provisions of this Lease will be satisfactorily performed in the future.

(i) In the event of any transfer or assignment, under this Paragraph 11 or by any other means authorized by this Lease, the Lease terms shall be for the remaining years existing on the Lease prior to the transfer or assignment. A transfer or assignment shall not extend the term of this Lease.

## 12. DEFAULT AND REMEDIES

### (a) Default

The occurrence of any one or more of the following events shall immediately and without further notice constitute a Default of this Lease:

(1) Lessee's failure to make any payment of rent, royalty, or other consideration as required under this Lease; or

(2) Lessee's failure to obtain or maintain liability insurance or a surety bond or other security device as required under this Lease; or

(3) Lessee's abandonment of the Lease Premises (including the covenant for continuous use as provided for in Paragraph 5(b)) during the Lease term; or

(4) Lessee's failure to obtain and maintain all necessary governmental permits or other entitlements; or

(5) The maintenance of the Lease Premises in violation of, or failure to comply with, any applicable provisions of any Regulatory Agency, Environmental Law, or maintenance of the Lease Premises in a condition constituting nuisance; or

(6) Lessee's Failure to commence to construct and to complete construction of the Improvements authorized by this Lease within the time limits specified in this Lease.

(7) Lessee is found to sublet or otherwise surrender daily management and control of the Lease Premises to a third party without the knowledge, expressed written consent or authorization of the Lessor.

(b) Lessee's failure to observe or perform any other term, covenant, or condition of this Lease when such failure shall continue for a period of thirty (30) days after Lessor's giving written notice shall constitute a Default of this lease. However, if the nature of Lessee's Default under this paragraph is such that more than thirty (30) days are reasonably required for its cure, then Lessee shall not be deemed to be in Default if Lessee commences such cure within such thirty (30) day period and diligently proceeds with such cure to completion.

(c) Should Lessee Breach any term, covenant, or condition of this Lease under Paragraph 12(b) above three (3) times in any three hundred and sixty-five (365) day period, the third Breach will be a Default under this Lease and Lessor will be entitled to immediately terminate this Lease, and take other appropriate action. Lessor will provide written notice of each Breach as provided above, and provide written notice that future Breaches will constitute immediate Default with no cure period.

### (d) Remedies

In the event of a Default by Lessee and Lessee's failure to cure such Default if such a cure period is applicable, Lessor may at any time and with or without notice do any one or more of the following in addition to any rights or remedies permitted by law:

(1) Re-enter the Lease Premises, remove all persons and property, and repossess and enjoy such premises; or

(2) Terminate this Lease and Lessee's right of possession of the Lease Premises by any lawful means. The termination shall not relieve Lessee of any obligation, monetary or otherwise, which has accrued prior to the date of termination. Such termination shall be effective upon Lessor's giving written notice and upon Lessee's receipt of such notice. Lessee shall immediately surrender possession of the Lease Premises to Lessor. Lessor shall be entitled to recover from Lessee all amounts to which Lessor is entitled pursuant to Section 1951.2 of the California Civil Code, or any other provision of law, including any necessary Repair, renovation, alteration, remediation, or removal of Improvements; or

(3) Maintain this Lease in full force and effect and recover any rent, royalty, or other consideration as it becomes due without terminating Lessee's right of possession regardless of whether Lessee shall have abandoned the Lease Premises, subject to the conditions imposed by Cal. Civil Code § 1951.2; or

(4) Exercise any other right or remedy which Lessor may have at law or equity.

**(e) Determination of Rental Value**

If rent under this Lease is calculated as a percentage of Lessee's income attributable to the Lease Premises and Lessee abandons the Lease Premises during some or all of the applicable period, then the reasonable rental value shall be the percentage of proceeds Lessor would have received had Lessee operated the Lease Premises in the usual and customary manner.

**(f) Waiver of Rights**

The failure or delay of either party to exercise any right or remedy shall not be construed as a waiver of such right or remedy or any Breach by the other party. Lessor's acceptance of any rent shall not be considered a waiver of any preexisting Breach by Lessee other than the failure to pay the particular rent accepted regardless of Lessor's knowledge of the preexisting Breach at the time rent is accepted.

**13. RESTORATION OF LEASE PREMISES AND ENVIRONMENTAL MATTERS**

**(a) Restoration of Lease Premises**

(1) Upon expiration or sooner termination of this Lease, Lessee must immediately surrender possession of the Lease Premises to Lessor. Prior to the time of surrender, Lessee must remove all or any Improvements together with the debris and all parts of any such Improvements at its sole expense and risk, regardless of whether Lessee actually constructed or placed the Improvements on the Lease Premises; or Lessor, at its sole and absolute discretion, may itself remove or have removed all or any portion of such Improvements at Lessee's sole expense. Lessor may waive all or any part of this obligation in its sole discretion if doing so is in the best interests of the State.

(2) As a separate and related obligation, Lessee shall restore the Lease Premises as nearly as possible to the conditions existing prior to the installation or construction of any Improvements. For purposes of this Lease, restoration includes removal of any landscaping; removal of any Hazardous Materials; and to the extent possible, undoing any grading, fill, excavation, or similar alterations of the natural features of the Lease Premises. Lessor may waive all or any part of this obligation in its sole and absolute discretion.

(3) Unless otherwise provided for in this Lease, Lessee shall submit to Lessor no later than one (1) year prior to the expiration of this Lease either: (a) an application and minimum expense deposit for a new lease for the continued use of the Lease Premises, or (b) a plan for the restoration of the Lease Premises to be completed prior to the expiration of the lease term together with a timeline for obtaining all necessary permits and conducting the work prior to the expiration of this Lease.

(4) In removing any or all Improvements, or conducting any restoration work, Lessee shall be required to obtain any permits or other governmental approvals as may then be required by any Regulatory Agency, including, without limitation, any Environmental Law.

(5) Lessor may, upon written notice, in its sole and absolute discretion, accept title to any or all Improvements at the termination of this Lease. Lessor shall notify Lessee that Lessor intends to take title to any or all Improvements within six (6) months of Lessee submitting a plan for restoration under Paragraph 13(a)(3)(b) above. If Lessor elects to take title to any such Improvements, Lessee shall deliver to Lessor such documentation as may be necessary to convey title to such Improvements to Lessor free and clear of any liens, mortgages, loans, or any other encumbrances. Lessor shall not pay, and Lessee shall not be entitled to compensation for Lessor's taking title to such property.

**(b) Environmental Matters**

**(1) Lessee's Obligations:**

(i) Lessee will not use, occupy, or permit any portion of the Lease Premises to be used or occupied in violation of any Environmental Law. Lessee shall not manufacture or generate or store Hazardous Material on the Lease Premises unless specifically authorized under other terms of this Lease.

(ii) Lessee shall practice conservation of water, energy, and other natural resources.

(iii) Lessee shall notify Lessor and the appropriate governmental emergency response agency, or agencies immediately in the event of any release or threatened release of any Hazardous Material.

(2) Lessor may at any time during the Lease term require Lessee to conduct at its own expense and by a contractor approved Form51.16 (Rev. 10/13)

by Lessor an independent environmental site assessment or inspection for the presence or suspected presence of Hazardous Material generated, used, placed, disposed, stored, or transported on the Lease Premises during the term of the Lease. Lessee shall provide the results of the assessment or inspection to Lessor and the appropriate governmental response agency or agencies and shall further be responsible for removing or taking other appropriate remedial action regarding such Hazardous Material in accordance with applicable Environmental Law.

(3) Environmental Indemnity.

Lessee shall indemnify, defend, and hold Lessor and Lessor's, officer, appointees, volunteers, employees, agents, successors and assigns free and harmless from and against all Damages that may at any time be imposed upon, incurred by, or asserted or awarded against Lessor in connection with or arising from any Breach of Lessee's obligations hereunder; or out of any violation by Lessee of any Environmental Law; or resulting in the imposition of any lien or claim for the recovery of any costs for environmental cleanup or other response costs relating to the release or threatened release of Hazardous Materials on the Lease Premises during the Lessee's tenancy. This obligation shall include any prior leases between Lessor and Lessee and will continue through any periods Lessee is in holdover, unlawful detainer, or any subsequent month-to-month tenancies created by operation of law. Lessee's obligations hereunder will survive the expiration or sooner termination of this Lease.

(4) Violation of this section shall constitute grounds for termination of the Lease. Lessor, shall notify Lessee when, in Lessor's opinion, Lessee has violated the provisions of this section. Lessee shall immediately discontinue the conduct and respond within five (5) business days. Lessee shall take all measures necessary to remedy the condition.

**14. QUITCLAIM**

Lessee shall, upon the early termination of this Lease and at Lessor's request, execute and deliver to Lessor in a form provided by Lessor a good and sufficient release of all rights under this Lease. Should Lessee fail or refuse to deliver such a release, Lessor may record a written notice reciting such failure or refusal. This written notice shall, from the date of its recordation, be conclusive evidence against Lessee of the termination of this Lease and all other claimants.

**15. HOLDING-OVER**

(a) This Lease shall terminate without further notice upon the expiration of the term of this Lease. Lessee shall have removed any Improvements and completed any restoration as required by Lessor prior to the expiration of this Lease, and shall surrender possession of the Lease Premises. Any failure by the Lessee to remove Improvements, restore the Lease Premises, and/or surrender possession of the Lease Premises at the expiration or sooner termination of this Lease shall not constitute a renewal or extension and shall not give Lessee any rights in or to the Lease Premises or any part thereof except as expressly provided in this Lease. Lessee shall be deemed in unlawful detainer of the Lease Premises and Lessor shall be entitled to all resulting legal remedies.

(b) Lessor may, in its sole discretion, choose to accept Rent for the Lease Premises instead of immediately taking legal action to recover possession of the Lease Premises. Any tenancy created by operation of law on Lessor's acceptance of rent shall be deemed a month-to-month tenancy regardless of what sum or sums Lessee delivers to Lessor. Except as set forth below, any subsequent tenancy created in this manner shall be on the same terms, covenants, and conditions set forth in this Lease insofar as such terms, covenants, and conditions can be applicable to a month-to-month tenancy

(c) In recognition of the increased accounting, land management, and supervisory staff time required for month-to-month tenancies, the rent for each month or any portion thereof during such holdover period shall be an amount equal to one hundred fifty percent (150%) of one-twelfth (1/12) of the total compensation for the most recent year paid. In the event this Lease does not require monetary compensation, Lessor shall have the right to establish rent based on the fair market value of the Lease Premises. The month-to-month tenancy may be terminated by Lessee or Lessor upon thirty (30) calendar days' prior written notice to the other.

**16. ADDITIONAL PROVISIONS**

(a) Waiver

(1) No term, covenant, or condition of this Lease and no omission, neglect, Default or Breach of any such term, covenant or condition shall be deemed to have been waived by Lessor's acceptance of a late or nonconforming performance or otherwise, unless such a waiver is expressly acknowledged by Lessor in writing. No delay or omission of Lessor to exercise any right or power arising from any omission, neglect, Default or Breach of term, covenant, or condition of this Lease shall be construed as a waiver or any acquiescence therein.

(2) Any such waiver shall not be deemed to be a waiver of any other term, covenant or condition; of any successive Breaches of the same term, covenant, or condition; or of any other Default or Breach of any term, covenant or condition of this Lease.

**(b) Time**

Time is of the essence for this Lease and each and all of its terms, covenants or conditions in which performance is a factor.

**(c) Notice**

All notices required to be given under this Lease shall be given in writing, sent by U.S. Mail with postage prepaid, to Lessor at the offices of the State Lands Commission and the Lessee at the address specified in this Lease. Lessee shall give Lessor notice of any change in its name or address.

**(d) Consent**

Where Lessor's consent is required under this Lease its consent for one transaction or event shall not be deemed to be a consent to any subsequent occurrence of the same or any other transaction or event.

**(e) Changes**

This Lease may be terminated and its term, covenants, and conditions amended, revised, or supplemented only by mutual written agreement of the parties.

**(f) Successors**

The terms, covenants, and conditions of this Lease shall extend to and be binding upon and inure to the benefit of the heirs, successors, and assigns of the respective parties.

**(g) Joint and Several Obligation**

If more than one Lessee is a party to this Lease, the obligations of the Lessees shall be joint and several.

**(h) Captions**

The section and paragraph captions used in this Lease are for the convenience of the parties. The captions are not controlling and shall have no effect upon the construction or interpretation of this Lease.

**(i) Severability**

If any term, covenant or condition of this Lease is determined by a court of competent jurisdiction to be invalid or unenforceable, the remainder of this Lease shall not be affected thereby, and each term and provision of this Lease shall remain valid and enforceable to the fullest extent permitted by law.

**(j) Representations**

Lessee agrees that no representations have been made by Lessor or by any person or agent acting for Lessor. Lessor and Lessee agree and acknowledge that this document contains the entire agreement of the parties, that there are no verbal agreements, representations, warranties or other understandings affecting this Lease, and Lessor and Lessee, as a material part of the consideration of this Lease, waive all claims against the other for rescission, damages, or otherwise by reason of any alleged covenant, agreement or understanding not contained in this Lease.

**(k) Gender and Plurality**

In this Lease, the masculine gender includes both the feminine and neuter, and the singular number includes the plural whenever the context so requires.

**(l) Survival of Certain Covenants**

All covenants pertaining to bond, insurance, indemnification, restoration obligations, Breach, Default, and remedies shall survive the expiration or earlier termination of this Lease until Lessee has fulfilled all obligations to restore the Lease Premises as required by this Lease.

**(m) Counterparts**

This agreement may be executed in any number of counterparts and by different parties in separate counterparts. Each counterpart when so executed shall be deemed to be an original and all of which together shall constitute one and the same agreement.

**(n) Delegation of Authority**

Lessor and Lessee acknowledge Lessor as defined herein includes the Commission Members, their alternates or designees, and the staff of the Commission. The ability of staff of the Commission to give consent, or take other discretionary actions described herein will be as described in the then-current delegation of authority to Commission staff. All other powers are reserved to the Commission.

STATE OF CALIFORNIA - STATE LANDS COMMISSION

LEASE NO. PRC 932.1

This Lease shall become effective only when approved by and executed on behalf of the State Lands Commission of the State of California and a duly executed copy has been delivered to Lessee. The submission of this Lease by Lessor, its agent, or representative for examination by Lessee does not constitute an option or offer to lease the Lease Premises upon the terms and conditions contained herein, or a reservation of the Lease Premises in favor of Lessee. Lessee's submission of an executed copy of this Lease to Lessor shall constitute an offer to Lessor to lease the Lease Premises on the terms and conditions set forth herein.

IN WITNESS WHEREOF, the parties hereto have executed this Lease as of the date hereafter affixed.

LESSEE:

CABRILLO POWER I LLC

By: *J. Chilla*

Title: *President*

Date: *9/2/14*

LESSOR:

STATE OF CALIFORNIA  
STATE LANDS COMMISSION

By: *[Signature]*

Title: Chief  
Land Management Division

Date: DEC 29 2014

ATTACH ACKNOWLEDGMENT

This Lease was authorized by the California State Lands Commission on

*AUGUST 15, 2014*  
(Month Day Year)

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

\*\*\*\*\*

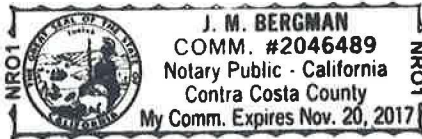
STATE OF CALIFORNIA  
COUNTY OF CONTRA COSTA

On September 2, 2014 before me, J.M. Bergman, Notary Public,  
personally appeared John Chillemi,

who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.



Signature J.M. Bergman  
Signature of Notary Public

Place Notary Seal Above

\*\*\*\*\*

**OPTIONAL**

Description of Attached Document

Title of Type of Document: Lease No. PRC 932.1 - California State Lands Commission

Document Date: \_\_\_\_\_ Number of Pages: \_\_\_\_\_



## EXHIBIT A

PRC 932.1

### LAND DESCRIPTION

A parcel of tide and submerged land situate in the Pacific Ocean adjacent to the mouth of the Agua Hedionda Lagoon, San Diego County, State of California, and being more particularly described as follows:

A strip of tide and submerged land 500 feet wide lying adjacent to the Agreed Ordinary High Water Mark of the Pacific Ocean as described in Boundary Line Agreement 271, on file at the Sacramento Office of the California State Lands Commission; said strip bounded on the northeast by said Agreed Ordinary High Water Mark; bounded on the southwest by a line parallel with the said Agreed Ordinary High Water Mark and lying 500 feet southwesterly measured at right angles therefrom; bounded on the northwest by the southeasterly boundary and extension thereof, of Parcel 1 of Parcel Map No. 9906, filed in the Office of the County Recorder of San Diego County on April 14, 1980 as File No. 80-126572; bounded on the southeast by the northwesterly boundary and extension thereof, of Lot 20 of Map No. 3052, filed in the Office of the County Recorder of San Diego County on February 4, 1954 as File No. 14672.

The sideline of said strip to be lengthened or shortened so as to terminate on the northwest at the southeasterly boundary and extension thereof of said Parcel 1, and on the southeast at the northwesterly boundary and extension thereof of said Lot 20.

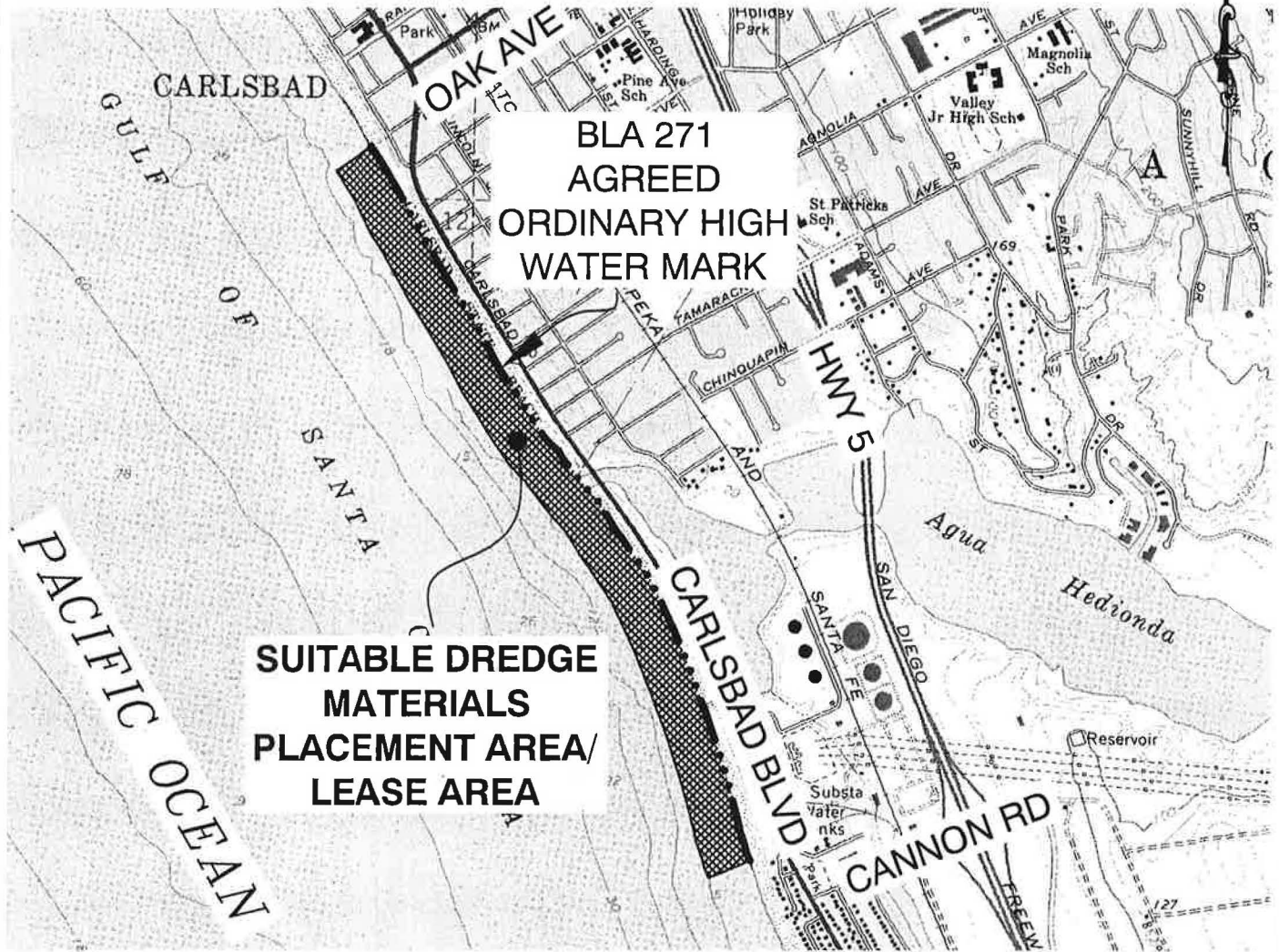
### END OF DESCRIPTION

Prepared 07/23/2014 by the California State Lands Commission Boundary Unit.



NO SCALE

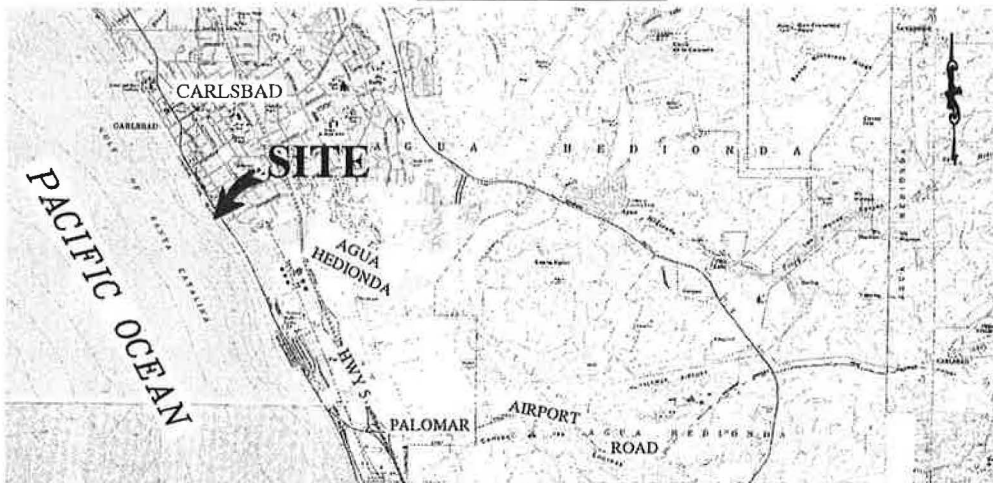
### SITE



CARLSBAD STATE BEACH VICINITY

NO SCALE

### LOCATION



MAP SOURCE: USGS QUAD

### Exhibit B

PRC 932.1  
 CABRILLO POWER I LLC  
 GENERAL LEASE - BEACH  
 NOURISHMENT USE  
 SAN DIEGO COUNTY



This Exhibit is solely for purposes of generally defining the lease premises, is based on unverified information provided by the Lessee or other parties and is not intended to be, nor shall it be construed as, a waiver or limitation of any State interest in the subject or any other property.

EXHIBIT C – SAMPLING AND ANALYSIS PLAN

**CABRILLO POWER I LLC, AGUA HEDIONDA LAGOON  
FLOOD SHOAL MAINTENANCE DREDGING  
SEDIMENT SAMPLING AND ANALYSIS PLAN  
CALIFORNIA STATE LANDS COMMISSION LEASE 932.1**

*Prepared for:*

**MBC Applied Environmental Sciences**

Attn: Mr. Eric Miller  
3000 Red Hill Avenue  
Costa Mesa, CA 92626  
Ph: (714) 850-4830

and

**Cabrillo Power I LLC**

**Encina Power Station**

Attn: Ms. Sheila Henika  
4600 Carlsbad Boulevard  
Carlsbad, CA 92009-4301  
Ph: (760) 268-4018

*Prepared by:*

**Merkel & Associates, Inc.**

5434 Ruffin Road  
San Diego, CA 92123  
*Phone: (858) 560-5465*  
*Fax: (858) 560-7779*

**July 2014**

**TABLE OF CONTENTS**

1.0 INTRODUCTION ..... 1

2.0 Background..... 1

3.0 Testing Program ..... 1

    3.1 Core Logging and Sample Handling..... 3

    3.2 Physical Analyses ..... 4

4.0 REPORT PREPARATION ..... 5

5.0 REFERENCES ..... 6

**LIST OF FIGURES**

Figure 1. Proposed Beach and Lagoon Sampling Stations..... 2

**LIST OF TABLES**

Table 1. Percent sand composition from prior flood shoal pre-dredging testing programs. .... 1

Table 2. Proposed sample locations at tidal basin and receiver location..... 3

Table 3. Chemical and physical analyses for sediment samples. .... 5

**CABRILLO POWER I LLC, AGUA HEDIONDA LAGOON  
FLOOD SHOAL MAINTENANCE DREDGING  
SEDIMENT SAMPLING AND ANALYSIS PLAN  
CALIFORNIA STATE LANDS COMMISSION LEASE 932.1**

*July 2014*

## **1.0 INTRODUCTION**

This Sampling and Analysis Plan (SAP) is for the characterization of flood shoal sediment deposits within the outer basin of Agua Hedionda Lagoon. Maintenance shoal removal and beach replenishment are proposed to occur under California State Lands Commission Lease 932.1. Dredging is completed every two to three years as required by shoal development. Under permit, up to 500,000 cubic yards of sediment may be dredged per maintenance interval.

The dredging is all maintenance littoral sand removal with no cuts into native sediments. The material is to be cut by electric cutterhead dredge and replaced on coastal beaches on North Middle, and South Carlsbad State Beaches (sites are both up and down drift of the Agua Hedionda Lagoon tidal inlet).

This SAP details the sediment collection and testing program to be conducted on the proposed dredged material in accordance with the standard procedures outlined, Evaluation of Dredged Material Proposed for Discharge in Waters of the U.S. (Inland Testing Manual [ITM]) (EPA/USACE 1998) and regional guidance of the USACE regulatory branch (USACE 1991). These guidance documents apply to inland waters, near-coastal waters, and surrounding environs. In addition, the California State Lands Commission has requested additional verification of chemical suitability sediment testing for a new lease for Lease No. 932.1, for the placement of dredged materials on the beach from Agua Hedionda Lagoon.

## **2.0 BACKGROUND**

The outer basin (Outer Lagoon) of Agua Hedionda Lagoon is an efficient sediment trap for entrained littoral sand that is brought into the lagoon through the combined influence of tidal circulation and cooling water flows. Sediment accumulation in the flood shoal of the lagoon degrades the tidal prism and tidal flushing within the lagoon and also reduces the operational efficiency of the power plant located on the outer basin. Since initial lagoon dredging in 1954, the accumulated flood shoal sand has been dredged out every one to three years to maintain an open tidal connection with limited muting of the lagoon. Previous testing of the flood shoal has indicated that the shoal is comprised exclusively of beach sand (Table 1).

During the most recent sediment-testing program (2010), grain size analyses indicated the material was composed of 97.2 to 98.5 percent (%) sand (Table 1) and total organic carbon (TOC) values ranged from non-detectable (ND = 0.05 %) to 0.08%. Coincident with this, receiver beaches were found to have a sand content ranging from 95.1 to 99.5% across the various sampling years. Receiver beach TOC samples in 2010 were all below the 0.05% reporting limit (M&A 2010).

**Table 1. Percent sand composition from prior flood shoal pre-dredging testing programs.**

Year	Percent Sand	Source
1993	95.5%-97.5%	MEC 1993
1995	96.0%-98.9%	MEC 1995
1997	93.8%-98.0%	MEC 1997
2000	98.4%-98.7%	MEC 2000
2002	90.0%-97.1%	MEC 2002
2004	97.4%-98.9%	MEC-Weston 2004
2006	97.9%-98.7%	Weston 2006
2008	97.7%-99.2%	M&A 2008
2010	97.2%-98.5%	M&A 2010

The conditions of the lagoon remain substantively unchanged from those existing during the 2010 sediment-testing program. M&A has worked extensively within Agua Hedionda Lagoon in association with the eradication of the invasive alga, *Caulerpa taxifolia* from the system (2000-2010), investigations of storm drain outlets to the lagoon (2012), maintenance of navigational aids for the City of Carlsbad (2011-2014), and completion of lagoon-wide eelgrass surveys for National Marine Fisheries Services (2013). As a result, M&A staff members have first hand information regarding conditions; there is no reason to suspect any change in sediment conditions from those of prior sampling events.

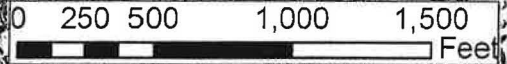
### 3.0 TESTING PROGRAM

Sediment testing is proposed in accordance with the requirements of regulatory permits and the "Evaluation of Dredge Material Proposed for Discharge in Waters of the U.S. – Testing Manual" (Inland Testing Manual) (Environmental Protection Agency (EPA)/U.S. Army Corps of Engineers (USACE) 1998). Merkel & Associates, Inc. (M&A), under contract to Cabrillo Power I LLC, will manage the sediment collection and testing study.

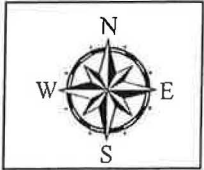
This study will include the following elements:

- Preparation of this SAP;
- Collection of sediment core samples to project depth according to the procedures outlined in the SAP;
- Physical and chemical analyses on test sediment composites for the flood shoal to be dredged;
- Physical analyses on sediment composites for the receiver beach, and;
- Data analysis and report preparation.

Sampling locations for the maintenance dredging of the outer lagoon and the receiver beaches follow the distribution of effort from prior testing events (Figure 1). Samples are to be collected by continuous core through the accumulated sands. Samples will be taken to the proposed dredge depth plus 2-feet of over dredge to a depth of -19 ft MLLW. The target core depth will be -19 ft to -20 ft from a top elevation of the flood shoal at 0 to +1 foot MLLW. Cores will be taken to the target depth or depth of refusal. Lagoon core sample distribution (L-1, L-2, and L-3) has been determined such that each continuous core represents approximately one third of the dredge material volume to be removed.



- Lagoon Station
- ▲ Beach Receiving Station



**Beach and Lagoon Sampling Stations**

**Figure 1**

Coordinates and target penetration is shown for each proposed sampling site in Table 2. Actual sampled locations shall be recorded to a  $\pm 3$  meter accuracy using GPS.

Receiver beaches are to be sampled at high (+5 to +7 feet MLLW) and low (-2 to +1 feet MLLW) intertidal elevations. Samples shall consist of surface sands collected by using a 6-inch deep hand core. Beach samples shall be collected from Carlsbad State Beach at the north (RB-1), middle (RB-2), and south (RB-3) beaches where material is to be placed. Planned sampling coordinates for beach sites are provided in Table 2.

**Table 2. Proposed sample locations at tidal basin and receiver location.**

Site	Approx. Volume (yd <sup>3</sup> )	Sample Location	Longitude	Latitude	Target Penetration (ft)
Shoal (Outer Lagoon)	350,000	L-1	117° 20'33"	33° 08'45"	19
		L-2	117° 20'29"	33° 08'41"	19
		L-3	117° 20'24"	33° 08'38"	19
Receiver Site (Beach)		RB-1	117° 20'55"	33° 08'59"	0.5
		RB-2	117° 20'29"	33° 08'30"	0.5
		RB-3	117° 20'19"	33° 08'13"	0.5

### 3.1 CORE LOGGING AND SAMPLE HANDLING

Core samples will be carefully extruded onto clean, plastic trays, photographed, and observed for unique strata, color, odors, etc. These observations, along with information on weather, currents, tides, winds, and other site conditions, will be recorded in the field log.

The following information will be recorded during the sediment collection program in a project-specific field log:

- Date and time of collection
- Sample identification code
- Sampling location (latitude/longitude to within a 3-meter accuracy)
- Water depth or elevation ( $\pm 0.1$  ft)
- Tidal stage and currents
- Climatic conditions
- Sampling method and any problems encountered
- Core penetration/core recovery
- Description of the material type obtained in the samples (color, odor, etc.)
- Description of any vertical stratification in each core
- Description of sediment subsampling methods if any required

Sediment stratification has not been observed in any of the prior characterizations of the flood shoal and as such no stratification is anticipated in the present effort. As a result, a composite sample will be collected from the entire core length. If distinct stratification greater than 2 feet is detected, then a separate sample will be taken from the strata although will not be analyzed until results from the composite sample are available and appears warranted. Each core sample will be thoroughly homogenized in clean, non-contaminating stainless steel mixing vessels and subsampled for archive purposes.



Collected sediments shall be kept separate in individual sample containers labeled with individual sample identification, date and time of collection and samples will be stored with ice packs at approximately 4°C until analyzed by the laboratory. Archived samples will be put into labeled 16 oz (500 ml) glass jars with teflon-lined lids and frozen. Samples will be held for a period of three months following submittal of the testing report. At which point they will be disposed of unless the client requests transfer of the sample.

The integrity of each sample from the time of collection to the point of data reporting must be maintained throughout the study. Proper record keeping and chain-of-custody procedures will be implemented to allow samples to be traced from collection to their final disposition. After collection of sediment, documentation on various logs and forms will be required to adequately identify and catalog station and sample information. Field log entries will be completed at the time that observations are made.

Sample container identification information will be recorded on the chain-of-custody form. The chain-of-custody forms will also identify the sampling organization, point of contact, sample collection date and time, type of sample, and project. The form will also serve as a sample analysis request form. Samples will be sent to the laboratory along with a chain-of-custody form specifying the sample identification and the analyses to be conducted (by referencing a list of specific analyses or the statement of work for the laboratory). These forms will be prepared in triplicate; the field supervisor will retain one copy, and the other 2 copies will accompany the shipment.

Proper completion of all chain-of-custody documentation will be the responsibility of the field manager. Chain-of-custody forms will be completed and signed before the end of each sampling day and before the samples are removed from the vessel or pass from the control of the field supervisor. Chain-of-custody forms will be signed at each additional point of transfer of samples between the field and the laboratory as well as within the laboratory. Receiver beach sediments are to be collected and processed similarly to the dredge site sediments for compatibility assessment. High and low beach samples at each site are to be composited to create a characterization of the individual site. All samples will be processed as bulk samples with no subsampling or stratified sampling.

### **3.2 PHYSICAL AND CHEMICAL ANALYSES**

The physical and chemical analyses and methods for the three lagoon sediment samples (L-1, L-2, and L-3) are listed in Table 3. Eurofins Calscience, a National Environmental Laboratory (NELAP) accredited laboratory, will conduct all physical and analytical chemical analyses. The three receiver beach samples (RB-1, RB-2, and RB-3) will be analyzed for TOC and grain size distribution only.

The sediment chemistry results for this study will be compared to available sediment quality guidelines (e.g., effects range low [ERLs] and effects range median [ERMs]) to determine the potential for chemical contaminants in the sediment to cause adverse environmental effects (Buchman 2008; Long et al. 1995).

Grain size distribution data will be tabulated to evaluate sediment compatibility between proposed nourishment material and receiver site.

**Table 3. Chemical and physical analyses for sediment samples.**

Analyte	Analysis Method
Grain-Size	ASTM D422 or D4464(M)
Percent/Total Solids	ASTM D-D216 or SM2540B
Total Organic Carbon	EPA 9060A
CA Title 22 - CAM 17 Metals: Sb, As, Ba, Be, Cd, Cr(t), Co, Cu, Pb, Hg, Mo, Ni, Se, Ag, Tl, V, Zn	EPA 6020/6020A & 7471A
Semivolatile Organic Compounds (Phenols, Phthalates, PAHs) by GC/TQ	EPA 8270C SIM/ GC/TQ
Organochlorine Pesticides	EPA 8081A
Polychlorinated Biphenyl's (PCBs)	EPA 8082/8082A

#### 4.0 REPORT PREPARATION

The draft and final study reports will contain the following information:

- Introduction – Includes a project description and a history of the site, historical uses, results of previous toxicity or sediment work, known contamination or discharges, and other relevant information
- Site Maps – Shows the test sediment collection locations
- Core Log – Includes core collection coordinates, target/actual penetration, and sediment characteristics (e.g., strata, color, odor)
- Methods and Materials – Includes all information pertaining to test sediment collection, handling, and analyses
- Results – Includes results from any physical and chemical testing
- Discussion – Includes a detailed description of any chemical and physical characteristics of the test sediments
- References
- Photographic Documentation
- Quality Assurance/Quality Control Information

## 5.0 REFERENCES

- American Society for Testing and Materials (ASTM). 1967. Standard Methods for Grain-Size Analysis of Soils. ASTM Designation D422- 63, Part II.
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